

**REMARKS/ARGUMENTS**

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claim 1 is presently pending in this application, Claims 2, 3 and 17-24 having been canceled, and Claim 1 having been amended by the present amendment.

In the outstanding Office Action, Claim 24 was rejected under 35 U.S.C. §112, first paragraph, as containing subject matter not enabling to one skilled in the relevant art; and Claims 1-3 and 17-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over JP 2002-226871 (hereinafter "JP '871").

Regarding the rejection under 35 U.S.C. §112, first paragraph, Claim 24 has been canceled, and thus this rejection is now believed to be moot.

Claim 1 has been amended herein. This amendment is believed to find support in the specification and/or claims as originally filed, for example, the specification: page 7, line 13; page 9, line 20; and page 10, lines 16-21, and no new matter is believed to be added thereby. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Before addressing the rejection based on the cited reference, a brief review of Claim 1 as currently amended is believed to be helpful. Claim 1 is directed to a process for decomposing a crosslinked polyester having no chlorine into a monomer or oligomer, and it recites: "hydrolyzing a crosslinked polyester having no chlorine with sub- or supercritical water crosslinked polyester being contacted with sub- or supercritical water in the presence of a water-insoluble base; recovering a monomer or oligomer obtained by decomposition of the crosslinked polyester, wherein the water-insoluble base comprises at least one compound selected from the group consisting of  $\text{CaCO}_3$ ,  $\text{BaCO}_3$  and  $\text{Ca(OH)}_2$ , and an amount of the

water-insoluble base is 50 to 200 parts by weight relative to 100 parts by weight of the crosslinked polyester.”

That is, according to the process of Claim 1, a crosslinked polyester having no chlorine is decomposed by hydrolysis with sub- or supercritical water predominantly over pyrolysis, the side reaction due to an organic acid can be suppressed, the decomposition of an organic acid itself can be inhibited, and a monomer or oligomer reusable as a polymer material can be recovered in a high yield from a crosslinked polyester having no chlorine.<sup>1</sup>

It is respectfully submitted that JP ‘871 does not teach or suggest “hydrolyzing a crosslinked polyester having no chlorine with sub- or supercritical water crosslinked polyester being contacted with sub- or supercritical water in the presence of a water-insoluble base ..., wherein the water-insoluble base comprises at least one compound selected from the group consisting of  $\text{CaCO}_3$ ,  $\text{BaCO}_3$  and  $\text{Ca(OH)}_2$ , and an amount of the water-insoluble base is 50 to 200 parts by weight relative to 100 parts by weight of the crosslinked polyester” or “recovering a monomer or oligomer obtained by decomposition of the crosslinked polyester” as recited in amended Claim 1.

More specifically, in the process described in JP ‘871, inorganic oxides and/or inorganic hydroxides (oxides or hydroxides of Na, K, Mg, and Ca) prevents the wear of the reactor due to halogens caused by the decomposition of halogen-containing plastics with high-temperature and high- pressure water.<sup>2</sup> In addition, JP ‘871 describes that the amount of these inorganic oxides and/or inorganic hydroxides is 1 to 2 equivalents relative to one equivalent of halogens contained in plastics,<sup>3</sup> and Example 2 of JP ‘871 states that the amount of  $\text{Ca(OH)}_2$  was 5% by weight relative to the amount of polystyrene or polyethylene.<sup>4</sup>

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<sup>1</sup> See, for example, Specification, page 3, lines 15 to 17, page 6, lines 4 to 23, page 7, lines 16 to 21, and Examples in page 13, line 21, to page 19.

<sup>2</sup> See, for example, JP ‘871, paragraph [0017].

<sup>3</sup> See, JP ‘871, paragraph [0018].

<sup>4</sup> See, JP ‘871, paragraph [0036].

As such, it is respectfully submitted that JP '871 fails to disclose or suggest the decomposition of a crosslinked polyester having no chlorine in the presence of a certain amount of a certain base as recited in Claim 1 of the present application, and the advantageous effects attributable to the process (*i.e.*, “decomposing a crosslinked polyester having no chlorine with sub- or supercritical water in the presence of a base selected from  $\text{CaCO}_3$ ,  $\text{BaCO}_3$  and  $\text{Ca(OH)}_2$  in an amount of 50 to 200 parts by weight relative to 100 parts by weight of the crosslinked polyester”) according to Claim 1 of the present invention would not be expected from JP '871 (*i.e.*, decomposing polymers other than a crosslinked polyester having no chlorine in the presence of the above amount of the above base).

Submitted herewith is a Declaration under 37 C.F.R. §1.132 executed by Takaharu Nakagawa of Panasonic Electronic Works Co., Ltd., (formerly, “Matsushita Electronic Works, Ltd.). The declaration is submitted to demonstrate that the aforementioned advantageous effects attributable to the process of Claim 1 are obtained by the decomposition process recited in Claim 1 but not by the decomposition of polymers other than a crosslinked polyester having no chlorine in the presence of the above amount of the above base.

Based on the foregoing discussions, it is respectfully submitted that the subject matter recited in amended Claim 1 is distinguishable over JP '871, and because JP '871 fails to disclose the subject matter recited in Claim 1, its teachings are not believed to render the process recited in amended Claim 1 obvious.

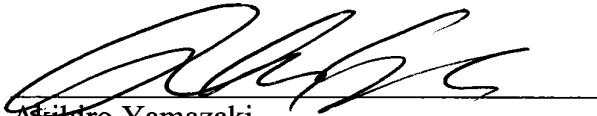
For the foregoing reasons, Claim 1 is believed to be allowable.

Finally, pursuant to the telephone communication of July 2, 2009 with Examiner Zucker regarding receipt of the certified copies of priority documents mentioned in Office Action Summary, Applicants respectfully request that the PTO acknowledges “All” certified copies have been received. Copies of the priority documents are scanned into PAIR.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

A handwritten signature in black ink, appearing to read 'Akihiro Yamazaki', written over a horizontal line.

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